

ELEVENTH ANNUAL COAL STRIPPING NUMBER

COAL MINING

APRIL, 1954

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VOLUME 31, No. 4

it's all a matter of
good equipment...



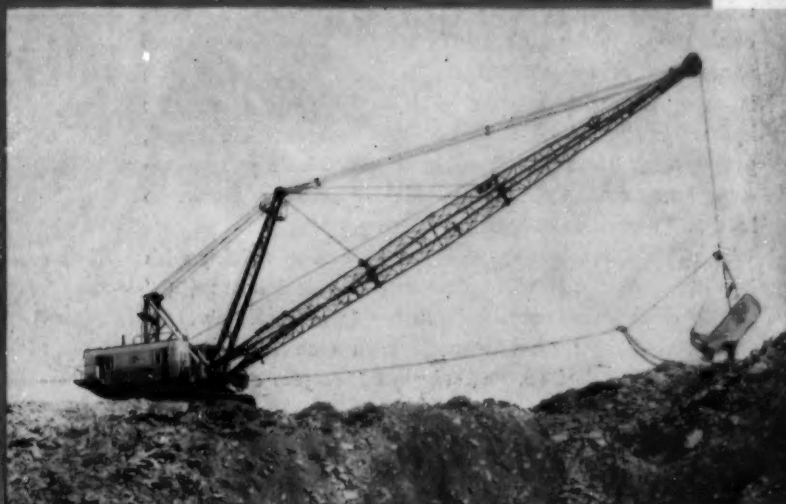
Whether your job starts on time, continues as planned, stays within cost estimates and earns you profits, depends mainly upon the performance of your mining equipment.

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Lima Dragline strips overburden for ROBERT BAILEY, Morrisdale.



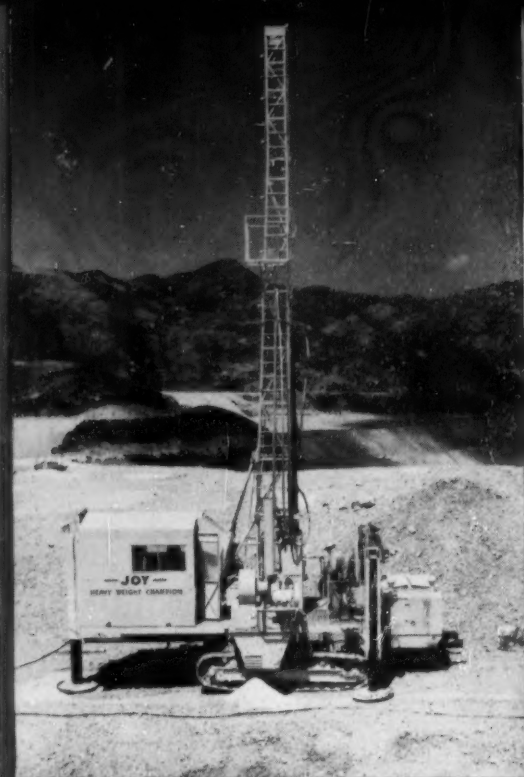
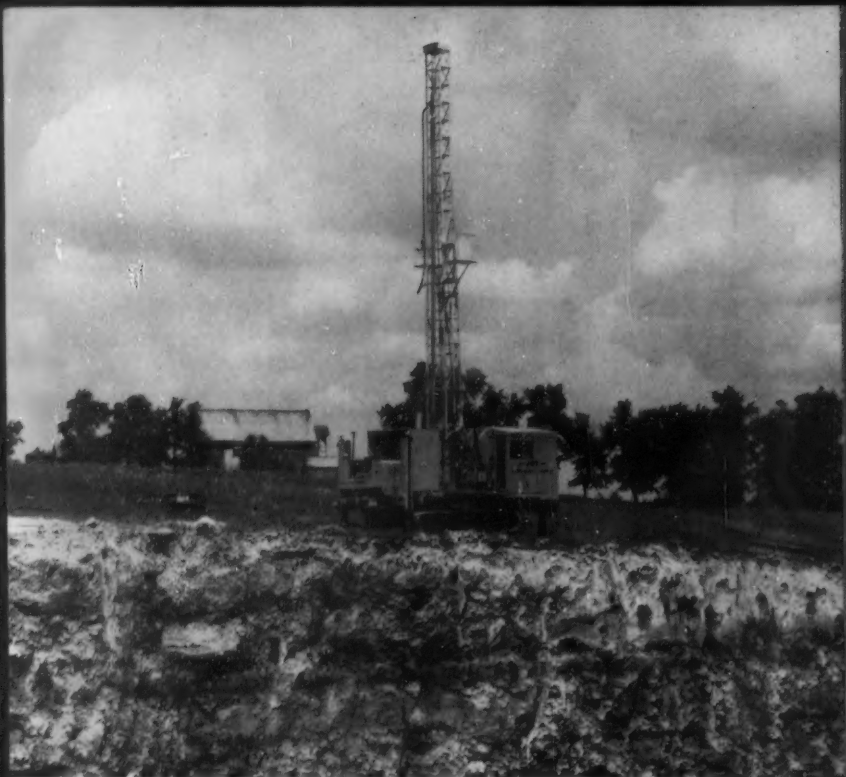
Allis-Chalmers HD-20 working at BARTELL MINING COMPANY, Surveyor.



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CHAMPION
BLAST HOLE DRILL**



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W&D CL-4022

JOY MANUFACTURING COMPANY

GENERAL OFFICES: HENRY W. OLIVER BUILDING • PITTSBURGH 22, PA.

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SELF-MOVING DRILL

HEAVY - RUGGED - POWERFUL



McCarthy barrel type cutting head produces maximum quality and quantity of lump coal.

42" COAL RECOVERY DRILL

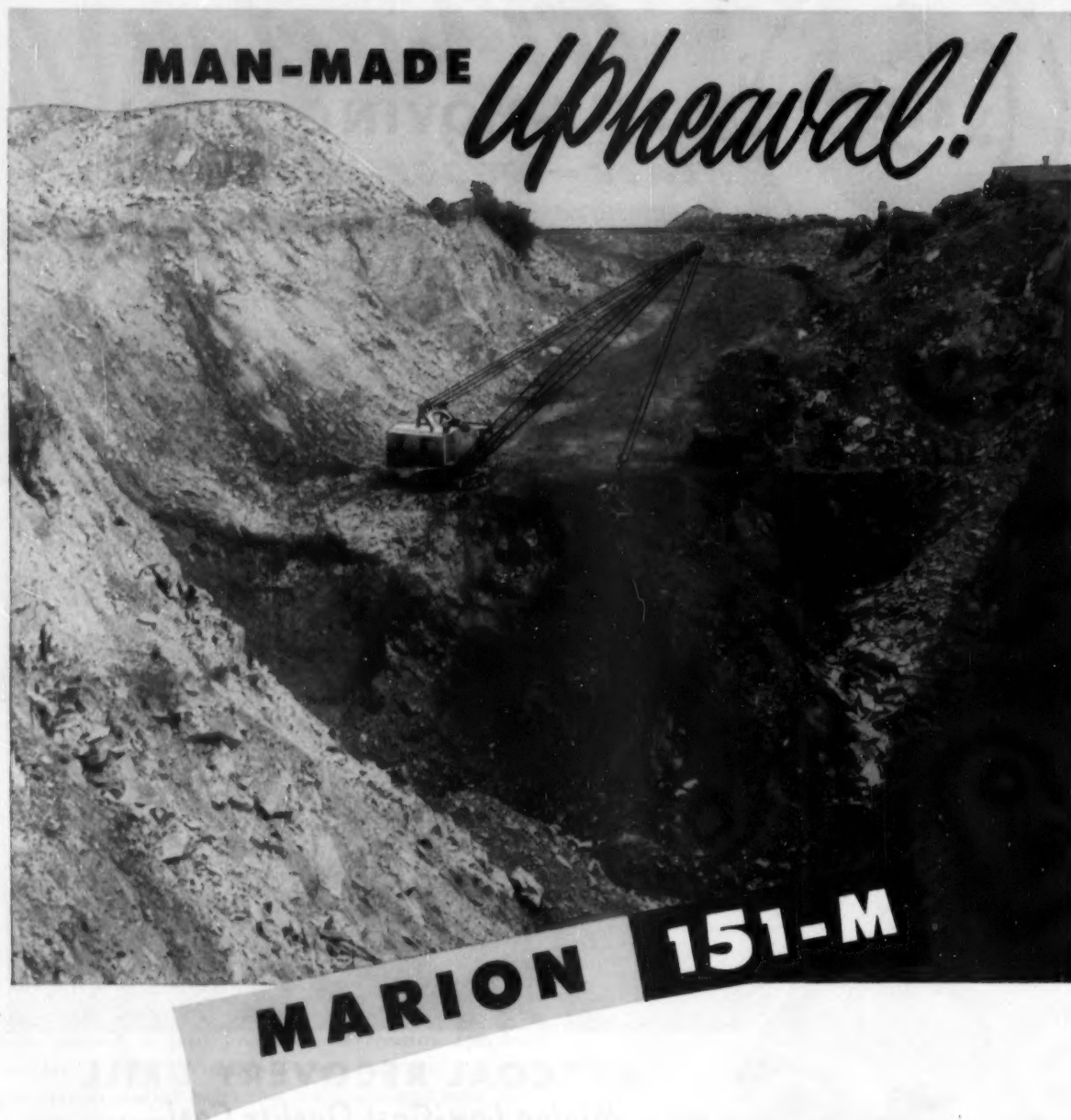
Mining Low-Cost Quality Coal...

This hydraulically self-moving 42" McCarthy Coal Recovery Drill is mining up to 500 tons of clean, low-cost, quality coal per day at Hodgeville, West Virginia. It has a three-man crew — operates in pits as narrow as 34 feet. Operator has all-around clear vision, including highwall. Jacks, hydraulically operated, lift 48 inches. Model 12 is built to handle augers 24 feet long from 16 inches to 48 inches in diameter as specified. Other McCarthy Coal Recovery Drills use augers 4, 6 and 12 feet in length.

THE SALEM TOOL COMPANY
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Five cubic yards—either of rock overburden or coal—are moved every time this dragline swings. It rides on a 100-foot boom that stacks the spoil high and far away.

Cycle time, on 180-degree swings, takes as little as 45 seconds.

The load may come from as far as 135 feet below grade—and be dumped as high as 65 feet above grade.

This hard-digging, fast-swinging dragline is only

one of nine MARION machines used by one company to develop rich anthracite coal veins in Pennsylvania.

The man-made upheavals made by this fleet of MARION machines are impressive. So is the record of dependability and big production of the MARION equipment.

Let MARION show you what machines like the 151-M can do to meet your coal stripping and loading requirements.

MARION

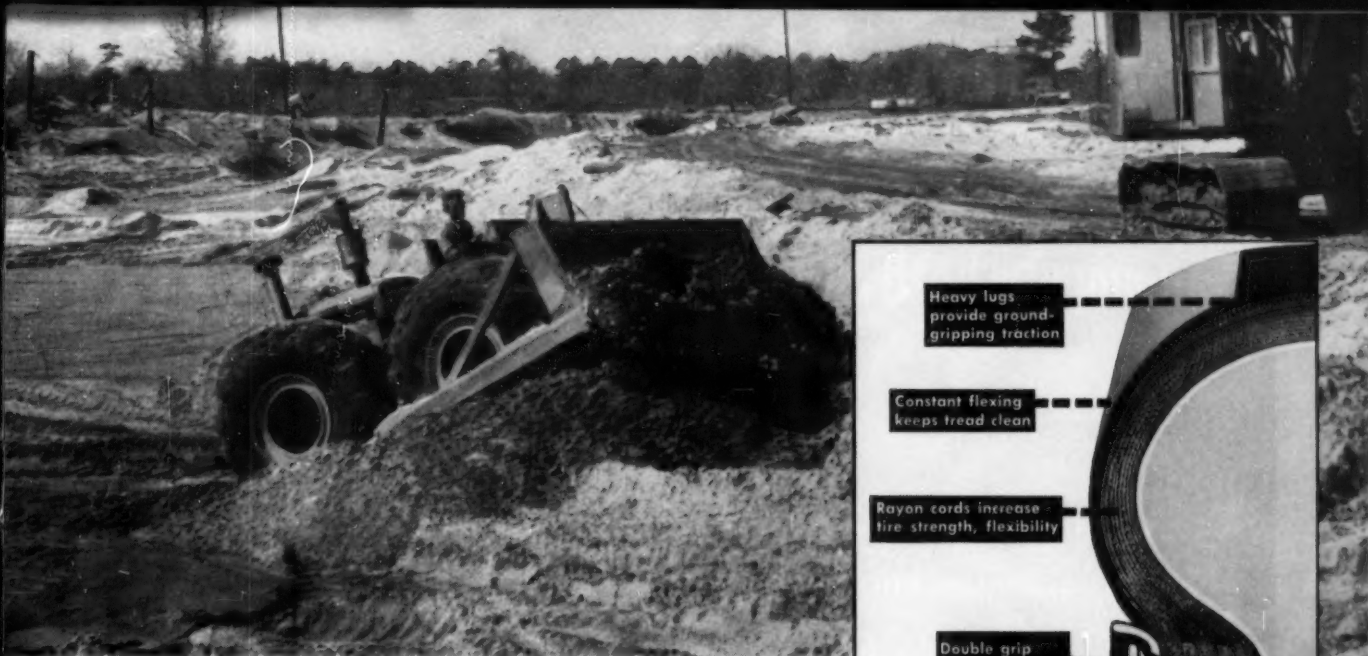
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MARION, OHIO, U. S. A.



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PROGRESS

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from $\frac{3}{4}$ cu. yd.
to 45 cu. yd.



Measure all the costs before you buy

Initial Costs

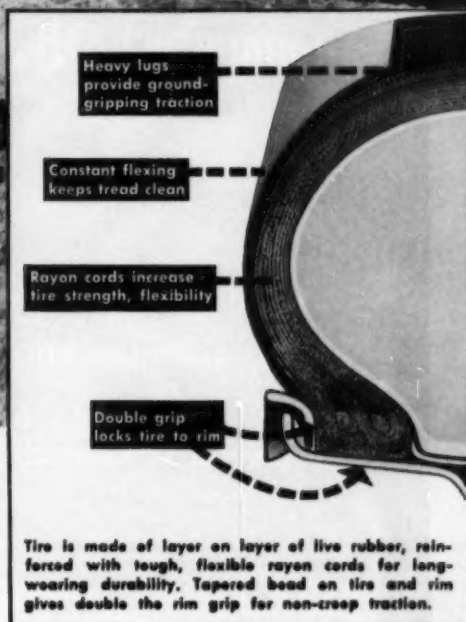
When you compare a Tournatractor with any big crawler-tractor, you'll find there isn't much difference in initial costs. The purchase price of the Tournatractor may be just under or just over the price of the crawler, depending on size and ply of tires used. But, with a tractor, as with many another item, "It's not the purchase price, but the upkeep!"

Maintenance Costs

The moment you watch these 2 types of tractors at work, a big difference between tire life and track life becomes evident.

In many types of soil, tires outwear tracks by as much as 2 to 1. In extremely abrasive materials, the advantage of rubber over tracks is so pronounced that most owners feel they simply can't afford the high track maintenance. In sand, for example, records show tires give as much as 4 times more service than tracks.

Dollar-wise, this often saves as much as \$3 per hour of operation. During a machine's depreciation period,



the elimination of high track maintenance alone can save more than the original cost of the machine.

Replacement Costs

When tracks become too worn from constant grinding in grit, they must be replaced. It's usually cheaper to buy a whole new set of track assemblies than to try to replace individual worn parts. That means paying for, and installing, some 562 wearing parts for every set of tracks.

Compared to 562 track parts, Tournatractor has only 4 tires. Replacing them when they become worn is a relatively fast, simple job. All you do is remove a few easily-accessible bolts and the wheels are off. If you've maintained proper air pressure, and have used reasonable care to avoid sharp rocks, chances are your sidewalls are still sound. Then you can simply get them *retreaded* for about half the cost of a new set of tires. Often your retreads are going strong when your neighbor is buying his *second* or even *third* new set of track assemblies! That's why owners say "for performance and profit, I'll take rubber every time."

Tournatractor—Trademark T-356-C-b



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GM DIESEL
CASE HISTORY NO. 537-42

USER: C. H. Snyder
 Coal Company,
 Cowansville, Pa.

INSTALLATION: GM "6-71"
 2-cycle Diesel replaced
 4-cycle Diesel in shovel
 over 2 years ago.

PERFORMANCE: Owner
 C. H. Snyder reports
 better performance,
 25% more production
 with GM Diesel power.
 GM Diesel starts faster,
 uses less lube oil, gives
 smoother operation.



... available in more than 750 models of equipment built by over 150 manufacturers

It Pays to Standardize on



Production up 25% with **GM DIESEL POWER**

When his shovel was two years old, owner C. H. Snyder switched to General Motors Diesel power and upped production from 8,000 to 10,000 tons of coal per month. He converted to GM Diesel because these 2-cycle Diesel engines have given him dependable low-cost performance in a tractor, dragline, truck and another shovel.

Fast-accelerating, smooth-running GM Diesels do more work at less cost in new equipment or old. They start at the push of

a button even in coldest weather—deliver power at every piston downstroke to speed operations, boost production. Low-cost parts are readily available and GM Diesel distributors back up GM Diesel performance with on-the-spot service. Call your distributor today—ask him about low-cost horsepower for *your* job.

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ISSUES SUCH A **Bond**

Now... YOU CAN BUY USED EQUIPMENT WITH ABSOLUTE CONFIDENCE!

Never again will you have to gamble on a piece of used equipment being in good condition. Now, with a Guarantee Bond On Used Equipment, your Caterpillar Dealer has taken chance and guesswork out of used equipment buying. Now you can buy with complete assurance that any defective parts in a bonded machine will be corrected *at no cost for parts or labor* up to the amount of the bond.

With a "Bonded Buy," your machine is backed by a Dealer's Guarantee Bond equal to the price of the machine up to a maximum of \$10,000. The machine must have been originally manufactured by Caterpillar Tractor Co., which is assurance in itself that it will do your work. If performance is unsatisfactory due to defective parts, including parts of any fixed attachments, during normal use and within thirty days after the purchase, the defective parts will be replaced by your Caterpillar Dealer without charge for parts or labor up to the amount of the bond.

The Travelers Indemnity Company, Hartford, Conn., backs this Dealer's Guarantee Bond. There's no "fine print" to confuse you. It's a legal document that states your Caterpillar Dealer's obligation to protect your used equipment investment.

See your Caterpillar Dealer and ask him for details on "BONDED BUY" Used Equipment . . . look over the fine equipment that is backed by bond—it's equipment you can buy with *absolute confidence*. Make your Caterpillar Dealer your Used Equipment Headquarters . . . for service, satisfaction—and safety!

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OF USED EQUIPMENT
... regardless of make—
GUARANTEED BY YOUR
CATERPILLAR DEALER**

Each piece of used equipment is checked thoroughly to determine the class of protection that can be given. If the "BONDED BUY" Bond is not applicable, the machine will be covered by either of these two plans . . .

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"Buy and Try:"

Bargains in used machines of any make. Buy and try them for a period mutually agreed upon by you and your dealer. Each "Buy and Try" machine carries his written "money back" agreement.

GUARANTEE BOND ON USED EQUIPMENT

KNOW ALL MEN BY THESE PRESENTS,
that.....
of.....

is held and firmly bound unto..... (hereinafter called Seller),
of..... (hereinafter called Buyer)

in the sum of not exceeding the lesser of TEN THOUSAND DOLLARS (\$10,000.00), or
Seller's price for the below described used equipment, for the payment of which Seller hereby
binds itself, its successors and assigns firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT WHEREAS Seller has
sold to Buyer the below-described used equipment originally manufactured by Caterpillar
Tractor Co.:

Description.....
Model No.....
Serial No.....

WHEREAS Seller guarantees said equipment and attachments affixed thereto, and
together with certain attachments affixed thereto, and
performance due to defective parts for thirty (30) days after the date of sale shown below, the
obligation under this guarantee being only to replace any parts which prove defective under
conditions of normal use during such 30-day period at Seller's expense (including cost of all
necessary materials and labor) up to a maximum of the lesser of Ten Thousand Dollars
(\$10,000.00), or Seller's price for said equipment, except that the cost, if any, of transporting
said used equipment and or attachments from and to the Seller's place of business shall be
paid by the Buyer.

NOW, THEREFORE, if Seller, its successors and assigns shall in all respects well and truly
perform the obligation under the guarantee recited above, then this obligation shall be void;
otherwise to remain in full force and effect.

THE ABOVE GUARANTEE IS VOID, AND SELLER SHALL BE UNDER NO OBLIGATION THERE-
UNDER, IF CLAIM IS NOT MADE TO THE SELLER WITHIN THREE (3) DAYS AFTER DISCOVERY
OF THE DEFECT UPON WHICH THE CLAIM IS BASED.

No guarantee is made or authorized to be made by Seller other than that above set forth.

Date of sale and issuance:..... 1954.

By:.....
The foregoing guarantee bond is secured by a
master guarantee bond of THE TRAVELERS IN-
DEMNITY COMPANY, Hartford, Conn.

Notice of claim under such master guarantee
bond must be made in writing by the holder of
the above guarantee bond to the branch office
of THE TRAVELERS INDEMNITY COMPANY located
at 301 South Adams Street, Peoria, Illinois,
within ninety (90) days after the date of issu-
ance shown above.

See reverse of this instrument for copy of sup-
porting master guarantee bond.

VALID ONLY IF ISSUED DURING 1954

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No.....

*"BONDED BUY" ASSURANCE EFFECTIVE IN THE UNITED STATES.

CATERPILLAR

New or Used...

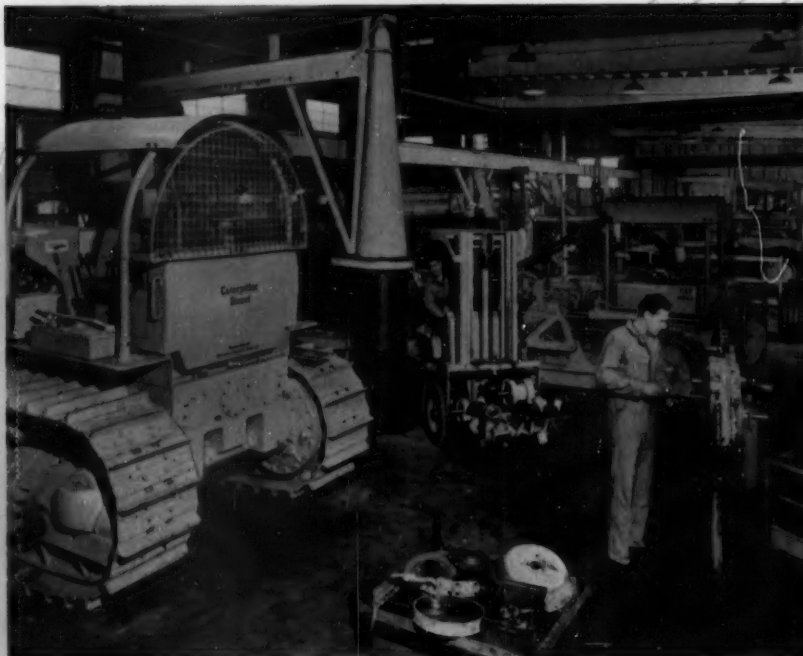
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CM-1

BUY A



AND BE SURE!



COAL MINING

XXXI

APRIL, 1954

No. 4

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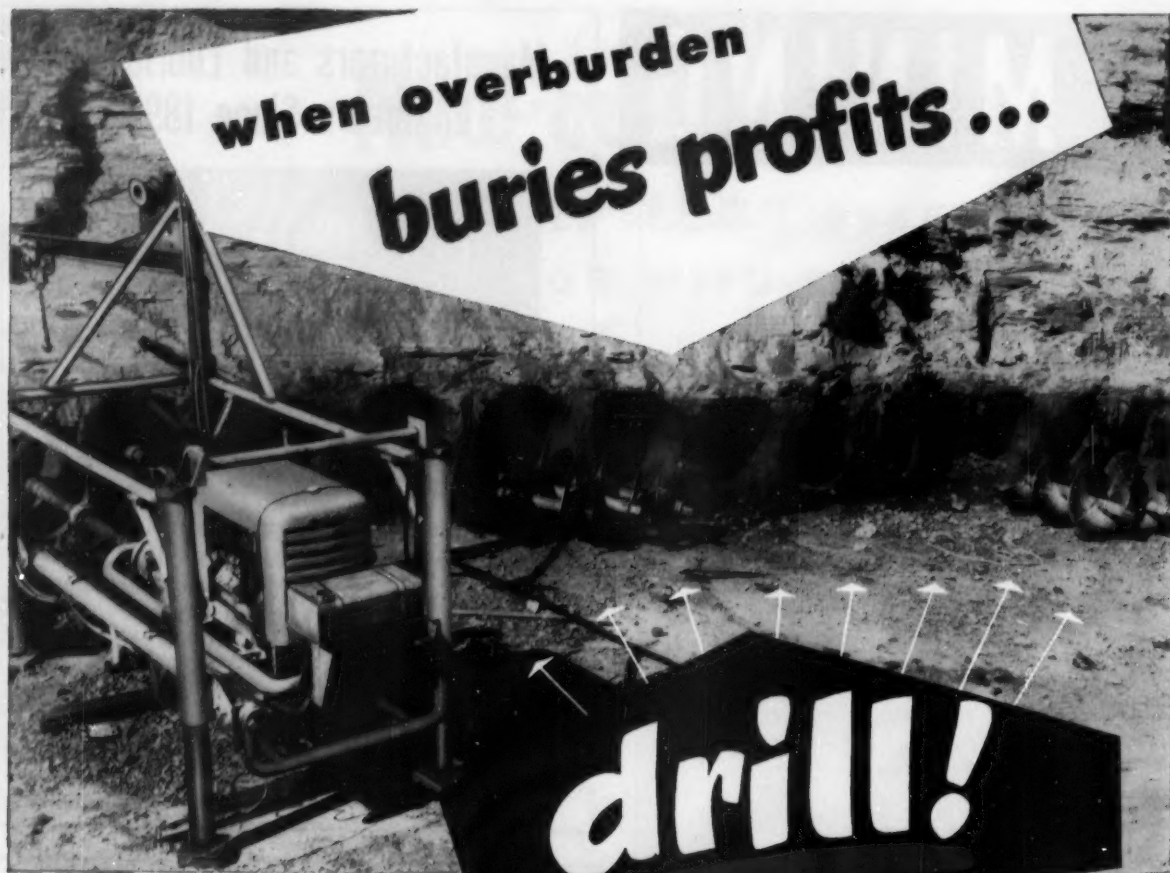
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brings "dead" strip mines back to life . . .



FOR THIN OR LOW SEAMS—This 95 H.P. Auger-Miner is designed for drilling in seams 30" or less thick, as well as for low seams—drills holes up to 24' in diameter.

With a CARDOX Surface AugerMiner you can drill back 10 to 120 feet into coal seams buried by excessive overburden. The cost of salvaging this coal is normally only a fraction of that of the original working by conventional methods. The coal you left behind may be your highest profit tonnage!

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Ask your CARDOX Representative for the Auger-Miner profit story. Or write for our AugerMiner bulletin.

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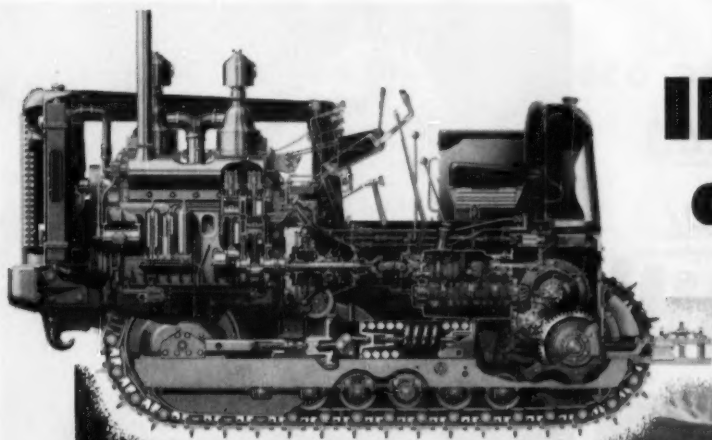
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INSIDE and OUT...



The Allis-Chalmers HD-15 now offers a choice of two outstanding drives — standard transmission with time-saving shift pattern, or optional hydraulic torque converter drive.

Allis-Chalmers is your **BEST** tractor buy

Allis-Chalmers tractors are truly modern — new from the ground up, without compromise anywhere in design or material. Built to meet today's demands, users find them more productive, more reliable, easier to operate.

Just check the advantages they offer you: — 1,000-hour lubrication periods on truck wheels, idlers, support rollers . . . all-steel, one-piece weld-

ed main frame that offers longer tractor life . . . A-type truck frames pivot to permit free track oscillation . . . double reduction final drives with more clearance and shorter shafts that resist deflection . . . unit construction for quick, easy disassembly . . . lubrication points easily accessible . . . easy operating controls. Add 'em up, you'll know why — Allis-Chalmers tractors are your best buy.

MODEL	HP.	WT.
HD-20	175 net engine*	41,000 lb.
HD-15	109 drawbar	27,850 lb.
HD-15	135 net engine*	28,300 lb.
HD-9	72 drawbar	18,800 lb.
HD-5	40 drawbar	10,500 lb.

*with hydraulic torque converter drive

Ask your Allis-Chalmers dealer to show you these tractors at work. Let him demonstrate how this modern design out-performs under actual job conditions.

ALLIS-CHALMERS

TRACTOR DIVISION • MILWAUKEE 1, U. S. A.

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MOST DEPENDABLE

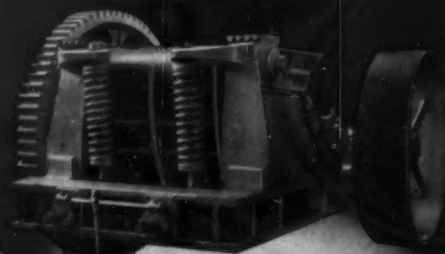
MOST ECONOMICAL

COAL CRUSHING EQUIPMENT

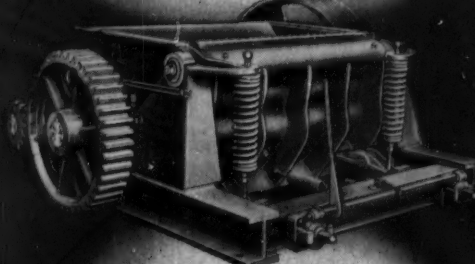
McLANAHAN

Backed by 117 years of manufacturing experience, McLanahan builds crushing equipment for the ultimate in economy through long service and minimum maintenance costs. This equipment, which has been thoroughly service-proven on the most demanding of domestic and foreign installations, is available in a great variety of sizes for every coal crushing requirement. A pioneer in the development of many types of crushing equipment—including the first single roll crusher produced in 1894—McLanahan is equipped to produce complete units, from feeders, primary and reduction crushers through elevators, sizing screens, etc.

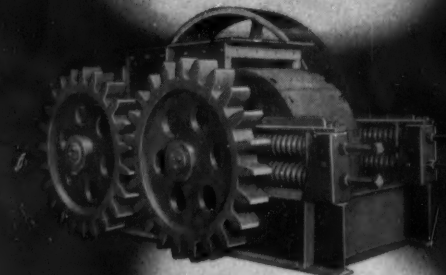
WRITE FOR BULLETINS: Separate bulletins are available on all the crushers shown, and on a wide variety of other equipment.



Single Roll Rockmaster Crusher for both primary and secondary crushing. Used for crushing mine refuse, sulphur balls, sand, rock, slate, etc. Bulletin RM-305.



Single Roll Black Diamond Crusher with exclusive automatic steelstrut toggle and quick adjustment. Bulletin BD-457.



McLanahan Double Roll Crusher for various reductions of medium-size lumps. Bulletin DR-447.



The low cost McLanahan Bantam Buster Single Roll Crusher. Bulletin BB-317.

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Pit, Mine and Quarry Equipment Headquarters Since 1835
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Dependable Products: Single and Double Roll—and Jaw Crushers, Crushing Plants, Reciprocating Plate and Apron Feeders, Roll Grizzlies, Conveyors, Elevators, Screens, Scrubbers, Steel Log Washers, Sand Drags, Hoists, Jigs, Dry Pans, Dryers, Scrap Bundlers, Pulleys, Gears, Bearings, Sprockets, Sheaves, Rollers, Bin Gates, Elevator Buckets, Gratings, Car Wheels, Ferrous and Bronze Castings.

Do You Know?

● The exceptionally talented child should be spotted early and allowed to speed through his grade-school and high-school education so that he can enter college by 16 or 17 at the latest, Dr. Lewis M. Terman, emeritus professor of psychology, Stanford University, urged. Dr. Terman was delivering the Walter VanDyke Bingham memorial lecture at the University of California.

Dr. Terman is well-known for his testing of geniuses among school children and for follow-up studies to find out how these talented youngsters turned out.

Studies of the age at which the best creative work is done have shown that in nearly all fields of science, the best work is done between the ages of 25 and 35, Dr. Terman pointed out.

"Youth of high achievement potential should be well trained for his life work before too many of his most creative years have been passed," he declared. Parents need have no fear that their bright sons and daughters will "burn out" early and become dull adults or "peculiar" people who find it hard to get along with their associates, Dr. Terman said.

Of the gifted group studied by Dr. Terman, 29% graduated from high school before the age of 16½. In follow-up studies, he compared the speeded ones with those who were kept back with their less gifted schoolmates. Their health records were equally good, he found. More of them graduated from college and on the average nearly a year and a half earlier. They married nearly a year earlier, had a lower divorce rate and score just a little higher on a test of marital happiness.

On the other hand, the exceptionally bright student who is kept with his age group finds little to challenge his intelligence and all too often develops habits of laziness that later wreck his college career, Dr. Terman warned.

Tests that permit the identification of gifted children are available in great variety and at nearly all levels from the primary grades to the graduate schools in universities. If the boy or girl who is potentially a great scientist is not identified before he reaches the graduating class in high school, there is a very good chance of his being found there by the Science Talent Search, Dr. Terman said. Since the Search, conducted by Science Service, was inaugurated in 1942, nearly 4,000 boys and girls have been picked for honors out of many thousands who have competed.

"As our need for more and better scientists is real and urgent," he said, "one can rejoice at what the talent search and the science clubs are accomplishing. One may regret, however, that the spirit of the times is not equally favorable to the discovery and encouragement of potential poets, prose writers, artists, statesmen and social leaders."

Also important in developing creative scientists is the atmosphere in which they pursue their college studies, Dr. Terman explained. A study of 18,000 scientists listed in American Men of Science and who got their bachelor's degree between 1924 and 1934 showed that it is not the great university but the small liberal

Here and There in the Coal Industry

● Mr. H. S. Jones has been appointed District Representative for Athey Products Corporation, according to an announcement by A. T. Marchuk, Domestic Sales Manager of the Chicago company.

Jones has served with various machine manufacturers in the design and sales fields. He was a Captain in the Air Force Engineers, conducting training courses on diesel and heavy equipment for the Army.

Working from headquarters in Cleveland, Jones will work closely on sales and market development with Athey distributors in Ohio, Indiana, Pennsylvania, Michigan and parts of Kentucky, West Virginia and Canada. The distributors for Athey heavy-duty earthmoving, loading and hauling equipment in this area are: Beckwith Machinery Co. of Pittsburgh, Pa., with offices in Bradford, Clearfield, Erie and Farrell, Pa. and Clarksburg, W. Va.; Ohio Machinery Co. of Cleveland, Ohio, with offices in Cadiz, Columbus, Toledo and Youngstown, Ohio; and Walker Machinery Co. of Charleston, W. Va., with a branch office in Parkersburg, W. Va.

● Wilkes-Barre, Pa. — Francis O. Case, president of Glen Alden Coal Company, announced the election of Wentworth P. Johnson to the Board of Directors of Glen Alden. Mr. Johnson succeeds Gurdon W. Wattles who resigned in November, 1953.

Mr. Johnson is a vice-president of Fidelity-Philadelphia Trust Company. He is a member of the Board of Edo Corporation, New York; John B. Stetson Company, Philadelphia; Investment Corporation of Philadelphia; Petroleum

Marketing Corporation, Philadelphia; and Delaware River Terminal Corporation, Philadelphia.

Mr. Johnson is a graduate of Yale University and the New York University Law School.

L. G. "Larry" Currie of Canton, Ohio, has been appointed a district sales manager by the Marion Power Shovel Company of Marion, Ohio. He will head Marion's District 116 which covers the southern part of Indiana and Illinois and parts of Kentucky.

As a service and erection engineer for Marion clutch-type machines for several years, he has become well-known by many mining men and contractors throughout the nation and Canada. Born in Xenia, Ohio, he is a graduate of Cedarville College in Ohio.

● Joy Manufacturing Company, Henry W. Oliver Building, Pittsburgh 22, Pennsylvania, announces the opening, on April 1, of a new district office at Cleveland, Ohio, for more convenient sales and service to the industrial, construction, quarry, and metal and non-metallic operations in the Ohio-Michigan area.

Howard E. Butters, formerly district manager in St. Louis, Missouri, has been appointed district manager at the new Cleveland office with headquarters at 2410 Terminal Tower, Cleveland 13.

The territory to be covered by the new office includes all of Ohio except the counties of Mahoning, Columbia, Carroll, Tuscarawas, Coshocton, Muskingum, Perry, Hocking, Vinton, Jackson, Scioto, Lawrence, Gallia, Meigs, Athens, Washington, Morgan, Noble, Monroe, Guernsey, Belmont, Harrison, and Jefferson.

In addition to all of Michigan except the Upper Peninsula and the counties of Saint Joseph, Kalamazoo, Van Buren, Cass, and Berrien, the territory also includes the northern Kentucky counties of Mason, Bracken, Pendleton, Campbell, Kenton, Boone, Gallatin, Carroll, and Trimble.

arts college that has the best record of turning out scientists. Reed College in Portland, Ore., topped the list with 132 per thousand graduates. The only technology school in the top 12 was the California Institute of Technology, which was second with an index of 70. Kalamazoo College was third with 66, Earlham (Richmond, Ind.) fourth with 57 and Oberlin (Ohio) fifth with 56. Only a half dozen of the great universities were in the top fifty.



Marion 7400 dragline stripping near Grove City. Coal is being loaded with a Marion 392 shovel.

NEW LOOK IN STRIPPING IN NORTHWESTERN PENNSYLVANIA

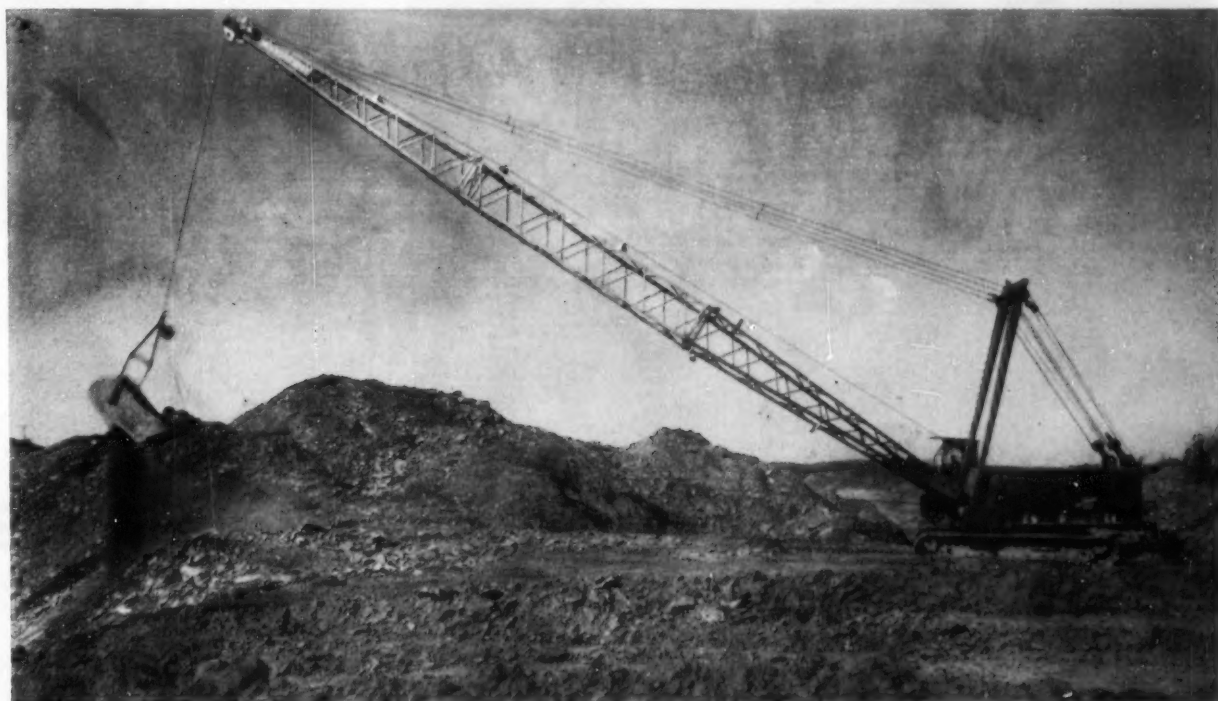
● Many strange new forces have been added to our economy through research and technology.

Research and technology are

keys to the maintenance of our economy and to the attainment of a higher social standard.

We are confronted with many

new and complex problems. In order to master these problems, we must undertake research on a scale hitherto unknown. Through re-



Manitowac 4500 dragline stripping at Earl Reed's mine, Grove City. Up to 65 feet of cover is moved to recover 4 feet of the Brookville seam.

search and technology will be found the needed new techniques, the needed new machines and gadgets to keep our economy moving forward.

Substitution of machinery for muscle resulted in ability to increase productivity, thus putting mankind on a new plateau of social evolution.

Our technological revolution, proceeding at almost an explosive tempo, is destroying old ideas, old fears, old notions. A new, vastly superior era is in the offing.

Having advanced a long way in relieving mankind of physical drudgery, research and technology have traveled to the doorstep of an era

(Continued on Page 14)



Two inch Jeager pump at the Perry-Ross mine near Slippery Rock.



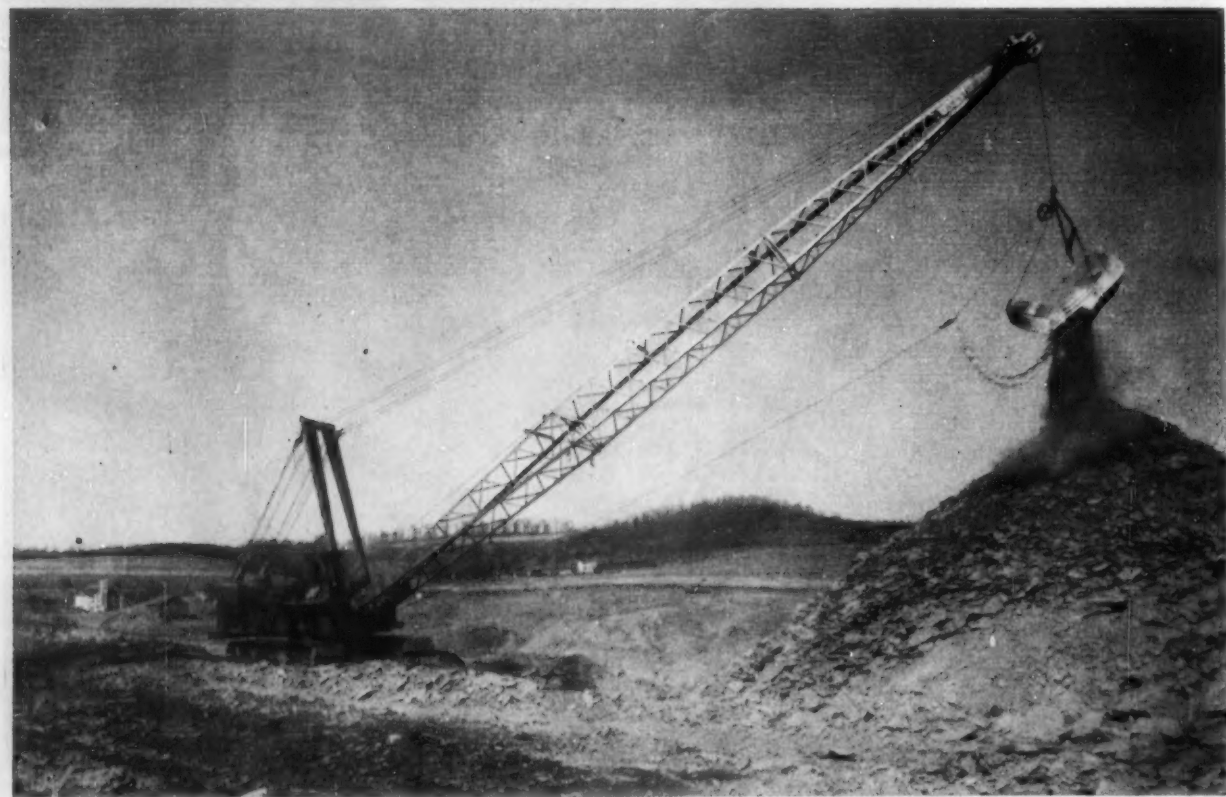
Showing overburden and about 45 feet of highwall at Earl Reed mine.



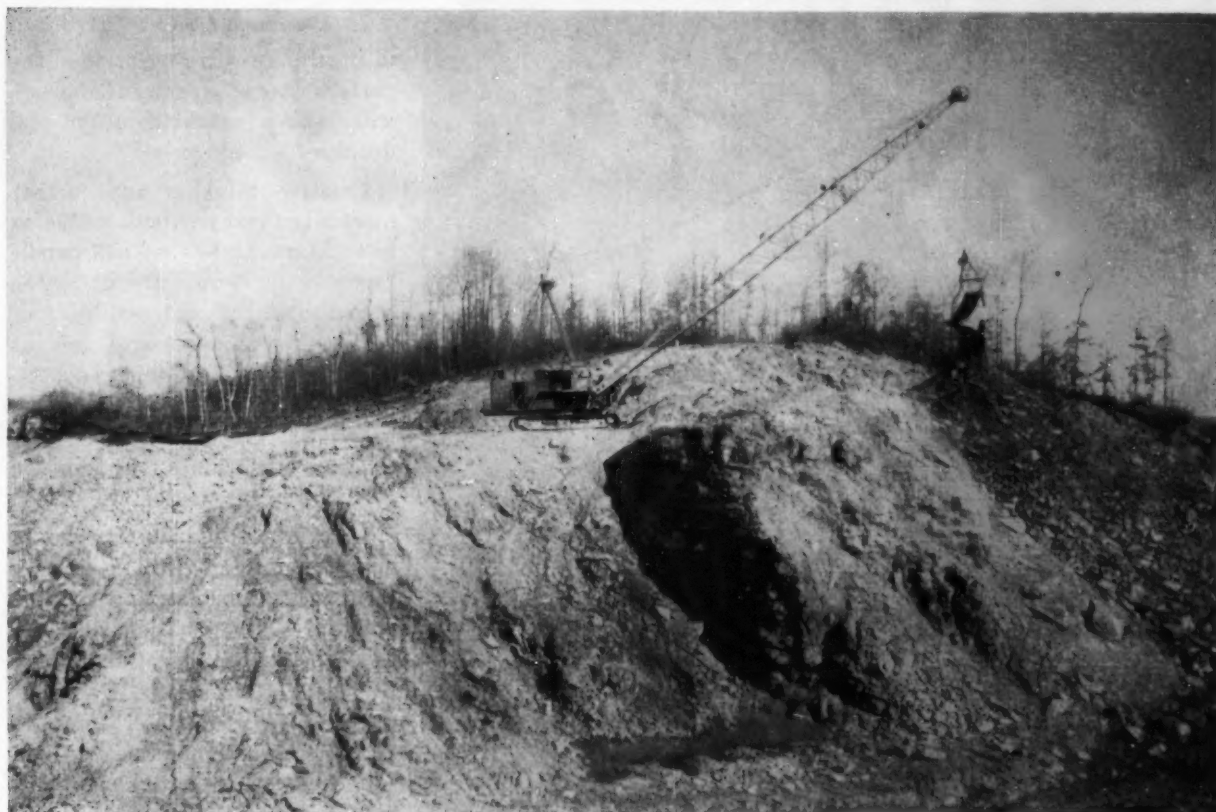
Top: HD 20 Allis-Chalmers tractor pushing overburden at Perry-Ross mine.



Middle: Rather than destroy a new barn the Tri-County Coal Company stripped around it. The land will be farmed again after backfilling.



Bottom: Manitowac 4500 dragline stripping at Tri-County mine near Boyers. Speeds on two of these machines has been increased from 142 rpm to 245 rpm.



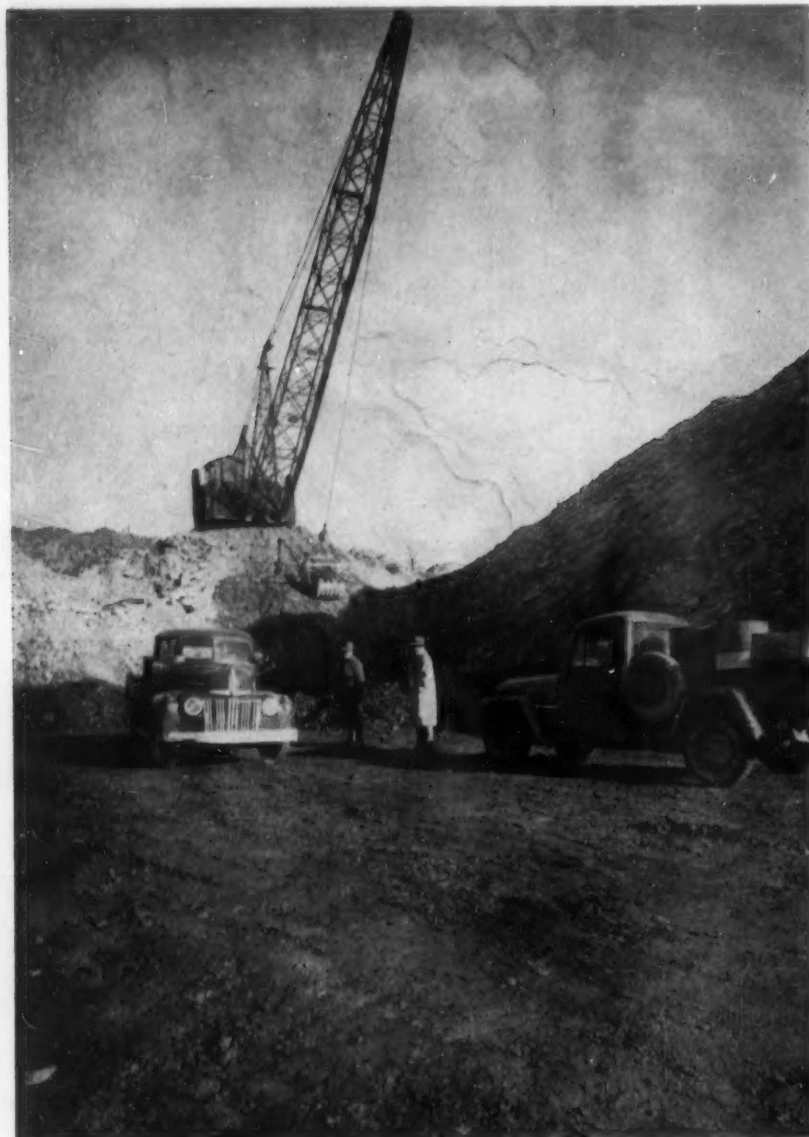
Top: Another Manitowac 4500 dragline stripping at Tri-County Coal Company near Boyers. Both draglines are equipped with 6 yard Page buckets.



Middle: Caterpillar D-8 tractor grading before a Manitowac 4500 dragline at the Tri-County Coal Company.

Bottom: Marion 331 shovel equipped with Esco coal loading bucket at the Tri-County Coal Company.





Page 618 dragline stripping at the Sunbeam Coal Co. at North Washington.



HD-20 Allis-Chalmers tractor levelling for the Page dragline at Sunbeam Coal Company.

(Continued from Page 11)

in electronics — a revolution in the performance of mental tasks which will relieve mankind of mental drudgery.

Creative thinking and further mechanical research will enable us to build machines that will handle functions now supplied only by the human brain. The substitution of machines for minds will free us from the many monotonous control jobs on individual machines as well as on the production line. Substitution of machines for minds will give us true automation.

Automation in industry and in business processing will mean radical changes in industrial and office procedures. Automation will mean new types of equipment and an opportunity for many specially trained people to enter into the highly technical maintenance and servicing work brought about by it.

Research and technology promise a future of prosperity far beyond anything this world has ever known.

The stripping industry like any other industry cannot escape this forward advance.

The coal stripping industry is slowly but surely improving its methods of operation to hold its position in the coal market. The new look in coal stripping in northwestern Pennsylvania indicates that there the new models of equipment, best suited to that area, are very much in evidence.

Keeping in step with the progress in industry no doubt accounts for the generally good attitude toward business that prevails in that area.

Coal lying in the northwestern part of Pennsylvania belong to the older coal deposits on this earth. They are not as thick as some of the later deposits but are of a better general quality therefore serve a more general market.



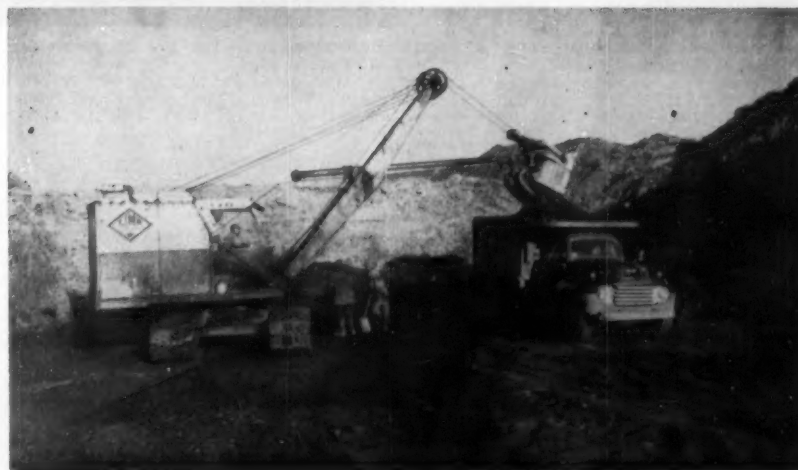
Top: Lima 2400 dragline stripping at the Hitchman Coal and Coke Company. Up to 60 feet of cover is being moved to recover 42 inches of Brookville Coal.



Right: D-8 Caterpillar tractor leveling ahead of Lima shovel at Hitchman Coal and Coke Company.



Left: Loading out coal at the Hitchman Coal and Coke Company.



Right: Lima Paymaster shovel loading out Upper Freeport coal at the Sunbeam Coal Company.



Top: Lima 2400 shovel stripping at Iseman Brothers, New Bethlehem.



Right: International TD 24 tractor pushing overburden at Iseman Brothers.



Left: International tractor equipped with revolving broom cleaning surface of coal at Joe Sherman mine at Hawthorne.



Top: Manitowac 4500 dragline stripping at Joe Sherman mine.



Above: International TD 24 tractor pushing spoil at the Joe Sherman mine.



Right: Mayhew shot hole drill making blast holes in overburden at the Joe Sherman mine.

tonnage UP costs DOWN

Let your Highway mining equipment specialists tell you how modern, efficient tools will boost your production and reduce your operating expenses.

Allis-Chalmers HD-20 . . .
River Hill Coal Co., Keewardin.



Allis-Chalmers HD-20 . . .
Martell Mining Co., Surveyor.



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Gar Wood • Hough • Master • Thor
• Wayne Crane • General Motors
Diesel Engines • Lima Shovels,
Cranes, Draglines • Erie Bins

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your telephone . . .**



***Efficient equipment is the
key to peak production . . .***

Faster! So phone your Highway representative today. He'll be happy to survey your job, check your equipment requirements and make practical, common sense recommendations that will save you time and money.

Jaeger Pump dewater pits, provides drainage, eliminates water problems at CHUTZ BROS. COAL CO., Slippery Rock.

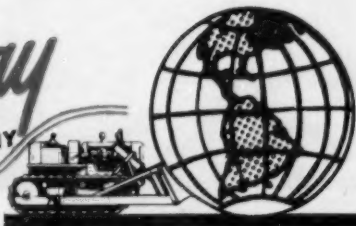


Lima 1201 high lift shovel boosts production totals at WEIRTON CONSTRUCTION CO. strip job, Weirton, Pa.



At MICHIGAN LIMESTONE CO. job near New Castle, Allis-Chalmers scraper speeds up stripping.

Highway
EQUIPMENT COMPANY



ALLIS-CHALMERS • JAEGER • BAKER • GARWOOD
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CRANES, DRAGLINES • ERIE BINS

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Pittsburgh, Pa.



Left: Manitowac 3500 shovel cleaning stripped coal at the Joe Sherman mine.

Below: Osgood 1007 dragline stripping at the Minns Brothers mine near DuBois.



Bottom: Osgood 1006 shovel stripping at the Zacherl Coal Company mine near Arthurs.





Lima 1201 shovel moving to new stripping location at the Russ Cravenor operation.



Four inch Jeager pump in pit of Joe Sherman at Hawthorn.

● Something entirely new and different in the truck-crane field, a hydraulically operated goosenecking boom, is now available as an optional accessory on the Pitman Crane, Model 80, 4-ton truck crane manufactured by Pitman Mfg. Co., Kansas City, Mo.



This unique boom, believed to be the first of its type ever offered commercially, was developed by Pitman as a quick, easy solution to overhead travel clearance problems.

The Pitman Crane is designed so that a trailer can be pulled by the same truck the crane is mounted. The crane can be used to load directly onto and off of this trailer.

With the new gooseneck-type boom, the operator can fold the boom down over a loaded trailer simply by pushing a lever at his regular operating station and be ready for road travel in a matter of seconds. Pitman officials assert that the Model 80 with its gooseneck boom will enable contractors, utility companies and others to reduce drastically equipment and man-power costs of handling and hauling pipe, poles, steel and many other types of materials.

When the new gooseneck boom is unfolded for work, it has the same strength and capacity as the standard boom. The goosenecking operation is accomplished with a hydraulic cylinder installed in a V-shaped opening about 4½ feet from the base of the boom. The folding unit is so designed that the stress in the boom resulting from a load is not on the hydraulic cylinder. Rather, it is on the heavy steel bars and pin which form the basic structure of the folding mechanism.

The Pitman Crane has a capacity of 4 tons on a 25-foot boom, 3 tons on a 37-foot boom. Additional boom lengths up to 59 feet also are available. In addition to the optional goosenecking feature, the standard 25-foot and 37-foot booms of the Pitman Crane are hinged at the side and can be folded for travel in less than 5 minutes.

Full details may be obtained from Pitman Manufacturing Company, 300 West 79th Terrace, Kansas City 14, Missouri.

● The important part Diesel Power plays in the world's economy today is told in the Spring issue of "Power Parade," a booklet issued quarterly by the Detroit Diesel Engine Division of General

Motors.

A copy can be obtained without charge from the Division's Distributors or by writing Detroit Diesel Engine Division, 13400 W. Outer Drive, Detroit 28, Michigan.



Left: Frank Whitsett, Attorney for the Asso.; David Reese, Asst. Attorney, J. P. MacFarlane, Secretary Independent Coal Strippers Assoc.; F. H. Mohny, Secretary Mineral Producers Assoc.



Left: Herman Moore, W. G. Moore and Son, W. Garfield Thomas, Deputy Secretary of Mines, G. W. Vickory, Carbon Coal Co.; Rev. D. Reeves, Pastor; Robert Lang, Secretary; Central Pennsylvania Coal Operators Asso.

Annual Membership Dinner Meeting of the Central Pennsylvania Open Pit Mining Association



J. H. Wallins, Owner Wallins Coal Co. and President of the Assoc.

● Two hundred five members and their guests attended the Annual Membership Dinner Meeting of the Central Pennsylvania Open Pit Mining Association held at the Dimeling Hotel, Clearfield, Pennsylvania, passing last years high attendance of 175.

The meeting was opened by Mr. J. H. Wallins, President, who welcomed the attendants and delivered his Annual Report of Association activities and pointed out that the membership roster is bigger than ever and that all members are in good standing. He also told the members that the financial standing of the Association is stronger than ever despite the fact that dues were reduced by 50% and that the recent acts of vandalism by irresponsible labor organizers caused some unnecessary effort and expenditures. President Wallins also mentioned the work being done in

fighting the importation of residual fuel oil on the East Coast.

An illustrative talk on the McCarthy Highwall Auger, accompanied by slides, was given by Harry Kepler, Sales Engineer for the Salem Tool Company. The sound color moving picture THE GAMBLER was presented by Walter Coldren, Clearfield Branch of the Beckwith Machinery Company which should be seen by every workman of the stripping and construction industries. The Principal speech of the affair was made by Victor Riesel, New York Newspaper Columnist who exposed some of the methods used by muscle men and racketeers among labor leaders who use their power for personal gain and to accomplish ends outside of aiding union members who "pay the freight."

Prior to the membership meeting the association Board of Direc-



Left: Geo. Schmitt, Koehring Co.; Phil Ferer, Lewis and Coulter; Jim Rider, D. A. Lubricating Co.; R. D. Jones and O. T. Shingledecker, Putman and Green, Inc.



Left: John F. Crum, Jr., and Geo. L. Benner, of Stripping Contractors, Inc.; O. H. Rickenbrode, Asst. Dist. Eng., Highway Dept.; K. S. Wall, Dist. Clerk, Highway Dept.



H. S. Moore, D. A. Gerhart, V. B. Broberg, Farnest Twist, Stanley Petroskey, all with the Moores Industrial Supply Co.



Left: Andrew Radomsky, Comfort Run Coal Co.; Bill Lightburn, Marion Power Shovel Co.; Geo. Radomsky, Comfort Run Coal Co.; Arthur Kerin, New York Central Coal Co.

tors held a brief meeting to carry out the provision of the by-laws "That the Board nominate a Board of Directors for the ensuing year." It was announced to the meeting that those placed in nomination were: J. H. Wallin, Philipsburg; B. M. DuBois, Clearfield; R. S. Walker, Bigler; Hartman Moore, Philipsburg; Robert Bailey, Morrisdale; Alex Bailey, Philipsburg; Earl M. Brown, Clearfield; Clair Hall, Snow Shoe; Ralph Kuhns, Philipsburg; Thomas J. Minns, DuBois; Everett Moore, Punxsutawney; Joe Radomsky, Osceola Mills; O. T. Shingledecker, Philipsburg; Lewis Stein, Philipsburg; Joseph Waroquier, Clearfield. Executive Secretary Stewart reported these nominations and gave an opportunity for nominations to come from the floor. After a brief interval Mr. Clair V. Fink made a motion that "nominations close and those nominated by the board be declared elected." This motion was seconded by Benson Lingle and carried unanimously.



Above Left: Roy Goodin, Allis-Chalmers Time Study Dept.; Alex Bailey, B and B Constr. Co.; G. Albert Stewart, Lewis Stein, Elliot Coal Mining Co.; J. F. Warquier, Warquier Coal Co.; John Anderson, Service Mgr., Beckwith Machinery Co.



Harry Kepler, Salem Tool Co., presenting slides. →



Left: Geo. Stott, Jr., Elwood Schooley, Ira Stott, Frank Smith, Atty. All with the Clyde Coal Co.



Robert Bailey, Bailey Coal Co.; Ralph Kuhns, John Teeter Coal Co.; Robert McIntosh, McIntosh Coal Co.; M. H. Hartsfeld, Nugent Mining Co.



Left: Bill Walker, Beckwith Machinery Co.; Ralph Kuhns, Teeter Coal Co.; John Sutton, Sutton Coal Co.; Cletus Fate, K and J Coal Co.; Clyde Thompson, Thompson Coal Co.



Victor Reisel, the principle speaker.



Left: Standing: R. R. Schubert, R. R. Schubert Rigging and Constr. Co.; Lew Lenz, Highway Equipment Co.; Leroy and Burt Thompson and Clifford Hubler of the Thompson Coal Co.



Above: G. W. Vickory, Carbon Fuel Co.; Hugh Cameron, Beckwith Machinery Co.; J. R. Woolridge, Woolridge Coal Co.; B. M. Dubois, DuBois Coal Mining Co.; G. Albert Stewart, Secretary of the Assoc.; Walter Coldren, Branch Mgr. Beckwith Machinery Co.

● Appointment of Edward R. Curry as southwestern regional sales manager of The Galion Allsteel Body Company, Galion, Ohio, is announced by Oliver C. Henkel, president.



An alumnus of Tulsa University, Mr. Curry was formerly district sales manager for the St. Paul Hydraulic Hoist Division of Gar Wood Industries, Inc. His experience also includes service in the sales department of H & H Equipment Co., Oklahoma City.

In his new post, Mr. Curry will direct sales of Galion Allsteel dump bodies and hoists of 3 to 27-ton capacities and Galion LOAD-elevator rear end loaders. He will make his headquarters in Tulsa.

● Two new 8 page catalogs covering the Euclid 17 Yard Bottom-Dumps and the Euclid Twin-Power Scrapers manufactured by the Euclid Division, General Motors Corporation are now available.

The 17 Yard Bottom-Dump catalog, No. 251, provides detailed information on a unit which features an excellent horsepower to weight ratio. It is interchangeable with 15.5 cubic yard Euclid Scrapers, giving the user the flexibility needed in today's competitive bidding. This unit hauls loads of 20 cubic yards heaped at 3:1 slope and 25.5 cubic yards heaped at 1:1 slope, at speeds up to 28.2 miles per hour.

Although the Euclid Twin-Power Scraper, described in Catalog No. 551, made its mark on construction projects, it is rapidly gaining acceptance in stripping and stockpiling operations. This Scraper hauls loads of 18 cubic yards struck, 21 cubic yards at 3:1 slope and 24 cubic yards at 1:1 slope, at speeds up to 31 miles per hour and has the ability to self-load in most materials.

Brief specifications and typical performance figures are included as well as individual design features.

Copies of this literature are available on request. Contact your local Euclid Distributor or write Euclid Division, General Motors Corporation, Cleveland 17, Ohio.



Attorneys and witnesses for the coal industry, at Federal Power Commission hearing on Pacific Northwest natural gas cases, from L. to R.: N. T. Patteson, National Coal Association; B. P. Manley, Secretary-Treasurer, Utah Coal Operators Assn.; Salt Lake City; O. F. Bridwell, Executive Secretary, Colorado and New Mexico Coal Operators Assn., Denver; T. J. McGrath, general counsel to Fuels Research Council, Inc.; and R. E. L. Hall, general counsel, NCA.



The Allegheny Machinery Sales Company of 600 Greentree Road, Pittsburgh, Pennsylvania, has selected May 15 for its exhibit and demonstration of road building, stripping and construction machinery. The exhibit will open at 10 A. M. and will close at 4 P. M. Buffet luncheon will be served along with beer and hotdogs. All coal strippers and invited.

● Headlight switch has built-in delayed action which permits the motorist to lock the car and walk to the house while the headlights remain on. One and a

half minutes later (maximum adjustment) the lights snap off. Molded of a durable phenolic plastic, the device is easily mounted on the dashboard.

PENN

TELESCOPIC HOISTS
...do it the easy way
up to 50 ton capacity



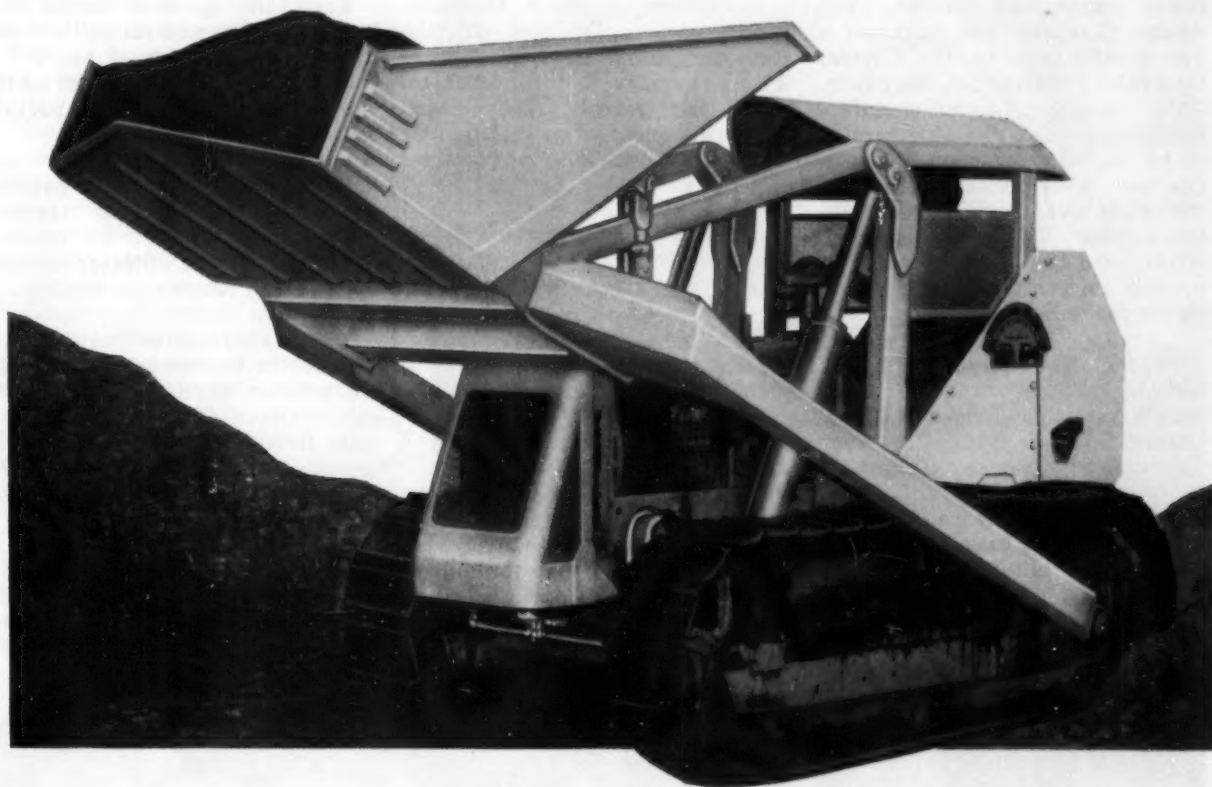
- 1—Rugged Construction.
- 2—Fan and Gusset type hinge. 16" bearing surface . . . 3" rear shaft.
- 3—Polished and ground sleeves.
- 4—Heavy duty 2½" roller bearing pump and hoist meter.

HERE is a telescopic hoist that was designed as a rough and ready companion for Penn Steel Dump Bodies. Requiring a minimum of maintenance and built to give long trouble-free service, Penn Telescopic Hoists lift heavy loads with ease without the risk of bending or twisting. No cams, levers, arms or rollers are used—lifting power is applied directly to the load. **BE SURE OF THE BEST—Specify PENN!**

PENN BODY DIVISION

**HOCKENSMITH
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Telephones: Jeannette, Pa. 700 . . . Pittsburgh, Electric 1-1242 **PENN, PA.**



Austin Model 4-C mounted on Caterpillar D4. Photo taken as Loader raises at coal stockpile.

New Austin Overshot Loader Has Many Mine Applications

● There's lots of new equipment being offered to our coal mining industry these days. Most of it is reputed to cut costs, save time, speed production . . . or accomplish some other worthy purpose that will enable operators to increase the efficiency of their daily work and meet and beat the competition of other fuels.

One of the most interesting of these recently-introduced devices is the Austin Overshot Loader — a materials-handling package designed for mounting on Caterpillar D2-4-6-7-8 Tractors.

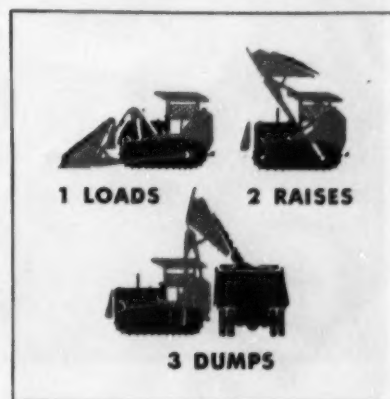
At first glance the Austin Loader looks very similar to the many other types of tractor loaders that

are now offered by leading manufacturers and which, over the years, have proved their ability to perform all types of coal-handling jobs rapidly and economically.

However, once you see the Austin operate, you note a tremendous difference. Unlike most other loaders, which simply lift the load at the tractor front end, move it and dump it, the Austin dozes into its load, raises it in an arc overhead — and dumps it into the haulage unit.

The complete Austin Overshot loading cycle can be clearly illustrated by the 3 simple sketches in the next column, to the right.

The Austin Overshot Loader was originally designed and manufactured by the Austin Manufacturing Co., Denver, headed by "Long John" Austin, internationally famous tunnel builder and



heavy construction veteran. The Austin Company was acquired a few months ago by the Central Ohio Steel Products Co., Mansfield, Ohio. Overshot Loader manufacturing and sales are now carried on by the latter company's Austin Division, with general offices in Mansfield and plants in Mansfield and Denver. The Loader has been streamlined and a great portion of present sales efforts are focused on the coal industry.

Incidentally, another of the Central Ohio Steel Products Company's operating divisions, is The Galion Allsteel Body Company, Galion, Ohio.

Galion Allsteel hydraulic hoists and dump bodies have been widely used in coal mining for over 40 years. So it can be readily seen that the Austin group is not made up of newcomers to the coal industry.

In discussing their Overshot Loader, Austin Division officials state that, when using an Austin, it's unnecessary to turn, block or swing the tractor. They claim that, consequently, an Austin will save as much as 50% of the time ordinarily required for loading.

A single Austin Overshot is reputed to normally keep as many as 15 coal haul trucks busy.

Also, there's no question about the ability of Austins to work in tightly confined areas, such as underground tunnels or pits, where turning is impossible.

To put an Austin Overshot to work, the operator simply moves the bucket against the load and fills it. (According to the manufacturer, the horizontal mounting of the main bucket arm permits handling the load with full tractor power.)

Then, the operator moves the hydraulic lever and raises the load in a straight overhead arc . . . shifts into reverse and backs up to the haulage unit while the bucket rises.

Often the truck can be backed practically against the tractor rear, eliminating need for reversing. Finally, the operator dumps his load and returns for another.

The manufacturer states that the Austin Bucket can be held in any position by releasing the single control lever. Bucket is said to raise in 8 seconds and lower in 4 seconds. It is claimed that normal loading cycles require only 14 to 17 seconds.

The Loader is 100% hydraulically operated. It uses the same type of hydraulic cylinders employed in the Galion Allsteel hoists, mentioned earlier in this article.



"Duck-bill" bucket bites into earth.

There are no gears, transmissions, clutches, couplers, chains, trapezes or complicated mechanisms to wear out or require service.

Power for Loader operation comes from the tractor engine, completely independent of the forward motion of the tractor. The Loader does not interfere with normal drawbar operations.

Loaders of various sizes can be equipped with buckets of varying capacities ranging upward from about $\frac{3}{4}$ cubic yards. For example, the popular Austin Model 6-C Overshot Loader, mounted on a Caterpillar D6 tractor, has a bucket capacity of 2 cubic yards.

Buckets of various design are also offered. One of the most popular is a heavy, ribbed, reinforced unit with a sharp "duck bill" cutting edge.


The Loader unit, as furnished complete and ready for installation, includes a radiator guard, front-end-mounted hydraulic pump, safety cab, metal side guards and heavily-fabricated oil reservoir tank on the rear for pusher work.

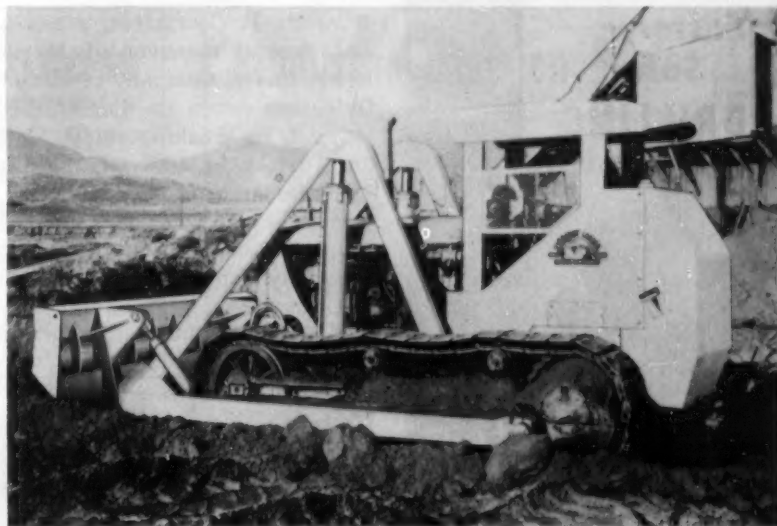
The manufacturer advises that Austins are ideal for building coal stockpiles, haul road maintenance, handling drainage problems and working around shovels.

Because their digging level can be precision-controlled, they are often used for strip salvaging of coal that can't be reached by other equipment.

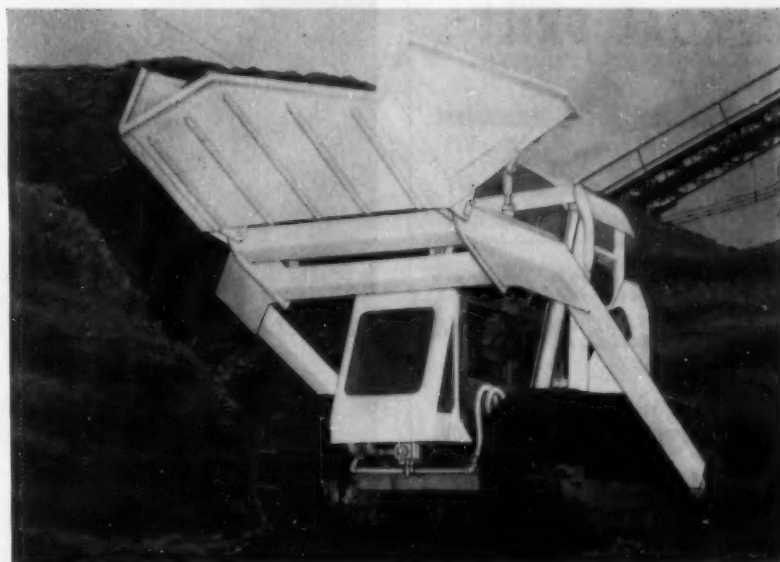
Backfilling of spoil piles into coal pits, cleaning up around the tippie, moving conveyors and unloaders are other regular Austin jobs. Frozen piles of coal do not stop Austins as they readily break through surface frost.

A feature of added interest and utility is that each Austin is so designed that its heavy-duty bucket can be easily removed and a dozer blade installed in 20 minutes or less.

Load has gone up and over and is being dumped. 



Loader with bulldozer blade installed.



Front view as load goes up.

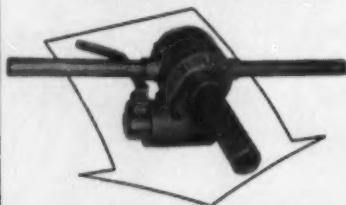


Faster, Safer DRILLING



with the

SCHROEDER MODEL 12-B COAL DRILL



*Light-Weight!
Hydraulic!*

The Model 12-B Coal Drill gives you safe, dependable fast drilling with complete operational safety . . . no spark, no kick . . . all electrical hazards are removed yards from the drill. Powered from the hydraulic power systems of standard mining equipment, the Model 12-B is simple in design. It has a minimum of operating parts resulting in greatly reduced maintenance costs.

Write or call for details and demonstration.

Hydraulic Power Units are available for several non-hydraulic mining units. Wheel or skid mounted power units can also be furnished. Write or call for particulars!

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Mining Equipment*

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EXPRESS 1-1571

• John P. Courtright, president and general manager of Marion Power Shovel Company of Marion, Ohio, was sworn in Monday, February 1, in Washington, D. C. as an Advisor to a division of the U. S. Department of Commerce.

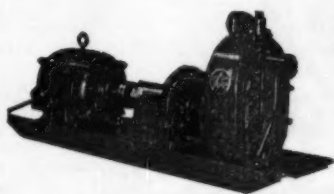
He will be a consultant, without compensation, on mining equipment Division of the Department of Commerce.

Mr. Courtright was sworn in

Monday afternoon by Charles F. Honeywell, administrator of the Business and Defense Service Administration of the Department of Commerce. Mr. Courtright has long been active in power shovel industry activities and in 1953 served as chairman of the manufacturers division of the American Mining Congress. He presently is a member of the board of directors of the American Mining Congress.



The Dieseler—a new remedy for diesel engine exhaust fumes—is shown here together with one of the catalytic units (Oxycats) that are the heart of the exhaust system. This twin-flow, heavy-gage steel catalytic muffler containing eight catalytic units is one of several models now being made by Oxy-Catalyst, Inc., for a wide range of 4-cycle diesel equipment. This particular model is the one now being used with dramatic results in the underground mine of the Coplay Cement Manufacturing Co. The flanged end (bottom) of the Dieseler is connected to the exhaust manifold of any 4-cycle diesel engine. The unburned carbon monoxide and hydrocarbon fumes of the engine exhaust flow across the catalyst-coated rods of the Oxycats where they are converted by catalytic oxidation to carbon dioxide and water vapor.



MARLOW SELF-PRIMING CENTRIFUGAL GATHERING PUMPS

Complete Line Carried in Pittsburgh Stock. Tel. HU 1-4400

HARRIS

PUMP AND SUPPLY COMPANY

Brady & Sidney Sts.

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INCREASE YOUR PRODUCTION

with

DALY'S IMPROVED COMBINATION MINE CHECK

The Only Satisfactory Check on the Market Today

DALY TICKET CO., Collinsville, Ill.

For Handling Highly Abrasive Pulps; Sand And Gravel,
Ash In Water; or Corrosive Liquids.
There Is No Pump In The World That Will Last
As Long As A

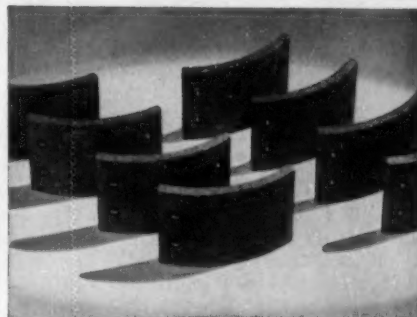
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Pittsburgh, Pa.

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Used SHOVELS, DRAGLINES, DRILLS, BUCKETS, Etc.

450-W Bucyrus-Erie Diesel Dragline, with 165' boom, 14½ yd. bucket, Cooper Bessemer diesel engine. 1948 machine.

625 Page Diesel Walking Dragline, with 150' boom, 9 yd. bucket, Westinghouse electrical equipment.

621-S Page Two-Engine Walking Dragline, with 135' boom, 6 yd. bucket, 3 cyl. 12½x16 and 3 cyl., 9½x12 diesel engine.

621 Page Single Engine Walking Dragline, with 135' boom, 5 yd. bucket, 3 cyl., 12½x16 Page diesel engine.

5-W Bucyrus-Erie Dragline, with 125' boom, 5 yd. bucket.

170-B Bucyrus-Erie Electrical Shovel, with 38' boom, 20' 6" dipper sticks, 6½ yd. dipper.

120-B Bucyrus-Erie Electric Shovel, with 34' boom, 26' stick, 4 yd. Esco dipper. Completely overhauled recently.

Model 1600 P & H Electric Shovel, with 34' boom, 22' 6" dipper sticks, 6 cu. yd. P & H Manganese front dipper.

Model 1400 P & H All Electric Stripping shovel, with 48' boom, 34' dipper sticks, 3¾ yard bucket.

2400 Lima Dragline, with 130' boom, 5 yd. bucket, Hamilton diesel engine. Improved drum sets installed.

4500 Manitowoc Dragline, with 140' boom, 5 yd. bucket, D-386 Caterpillar diesel engine. New late 1951.

4500 Manitowoc Combination Shovel and Dragline, with 140' boom, 4 yd. Page bucket, 5½ yd. shovel front. New late 1951.

111-M Marion Standard Shovel, 3½ yd. dipper, twin G. M. C. diesel engines. Worked about two years.

1055 P & H L. C. Dragline, with 90' boom, 4 yd. Page bucket, Buda diesel engine, rebuilt in 1953.

1201 Lima Standard Shovel, with 18' 11" crawlers, 44" treads, 32' 6" boom, 22" dipper handle, 3½ cu. yd. dipper, 6 cyl., Cummins diesel engine.

1201 Lima Hi-Lift Shovel, with 42' boom, 32' stick, 2½ yd. dipper, 6 cyl., Cummins diesel engine.

1201 Lima Dragline, with 85' boom, 3 yd. Page bucket, Cummins diesel engine. Late machine.

3500 Manitowoc Dragline, with 80' boom, 2½ yd. bucket, Caterpillar D-17000 engine.

54-B Bucyrus-Erie Dragline, with 80' boom, 2½ yd. bucket, new Buda diesel engine installed two years ago.

80-D Northwest Shovel, with Murphy diesel engine, 2½ yd. dipper.

95 Northwest Dragline, with 90' boom, 2½ yd. bucket, Murphy diesel engine. New in 1951.

LS-85 Link Belt Shovel, heavy duty, with ¾ yd. dipper and Cat. 8800 diesel engine recently overhauled.

25 Northwest Shovel, with 4600 Cat. engine. ¾ yd. dipper.

34 Lima Paymaster 1 cu. yd. Shovel, G. M. C. diesel engine. Late 1948 machine.

42-T Bucyrus-Erie Well Drills, diesel or full electric powered, with or without jacks, with Cat. or International engines.

Ingersoll-Rand Quarrymaster Drill, with 2-500 CFM air compressors, dust collector, hydraulic leveling jacks. New in 1951.

Joy 58-BH Heavyweight Electric Drill, 30' mast, 8' extension, dust collector, hydraulic jacks and 550 cu. ft. air compressor. New 1952.

Parmanco Power Feed Horizontal Drill, with VF-4 motor, complete with augers.

Jaeger 195 cu. ft. Air Compressor.

Euclid Trucks — 2TFD, 8TD, 5FD, 28FD, 49FD, 13TD, 14TD, and 6 LD.

DW-10 Tractors, side dump Athey wagons, 12 yds. struck measure, 16 yds. heads; powered with 4600 Cat. engine. Hydraulic steering. Used less than 800 hours.

Used 7 Yard Bucyrus-Erie Red Arch Bucket, 190 cu. ft. Used very little and in good shape.

Used 8 Yard Esco Light Weight Bucket, 214 cu. ft. weight 13,780 lbs. A real bargain.

Frank Swabb Equipment Co., Inc.

313 HAZLETON NAT'L BANK BLDG.

TELEPHONE 4910

HAZLETON, PA.

● First new model announced by OSGOOD-GENERAL in 1954 is the Model 250 . . . a $\frac{3}{4}$ cubic yard crawler mounted machine. Designed to meet the increasing requirements of counties, towns, cities and other public works projects, and for the small contracting job . . . The Model 250 is a rugged, well-built machine which promises to live up to the OSGOOD-GENERAL reputation for high production and long life.

The operating machinery is mounted on a sturdy one-piece, unit cast steel deck, designed to take the continuous operating strains normal operation gives. The horizontal shafts are held in rigid alignment thru unit cast

steel machinery side frames . . . mounted on machined pads which are integral with the deck. This arrangement prevents weaving and mis-alignment and reduces the wear and down time of those parts.

The swing and travel motions are actuated by spiral bevel gears, machine cut teeth, which operate in oil, and are actuated by large air-cooled band type clutches. Deck gears, bands and chains are covered, for safety and clean operation. Libral use of anti-friction bearings throughout provide a quiet, and smooth running machine. Lubrication is led to inaccessible points by tubing.

Cab covers entire machine, provides the operator with plenty of

room to work and to service the machine. He has a full view of all phases of his work, and floors have anti-skid surface.

Shovel boom is all steel, welded box type construction, 17' long. Handle is inside type, all steel, welded, 15' long. Lattice type boom for crane, Dragline, and Clamshell service is all-welded, with tubular lacings, flange connected. Standard boom length is 35', with inserts 5, 10, 15 and 20 feet available. Two-piece jibs, 10' long with 5 and 10 ft. inserts, are also available. Pin connected boom, which may be folded, is optional equipment.

Hoe boom is 16'-6" long with a 6'-10" arm. Standard dippers are PM, up to 36" in width.

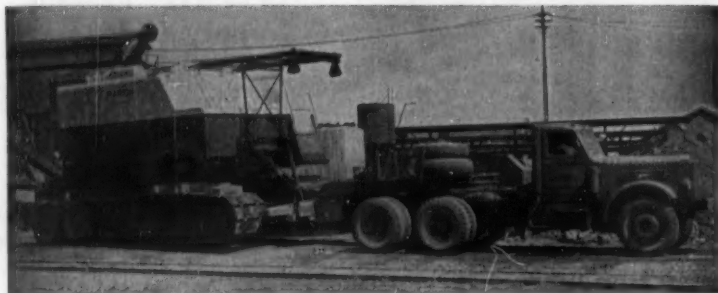
Machine is powered by either gasoline or diesel, Continental engines standard. Overall length of crawlers is 11'-0", with standard 22" width treads, 36" width treads are optional equipment.

Weight of machine as Shovel and Hoe is approximately 36,000 lbs. Additional information may be obtained in Specification No. 5420, from OSGOOD-GENERAL, P. O. Box 515, Marion, Ohio, or any OSGOOD-GENERAL Distributor.

● John S. Mitchell, assistant controller, Rochester and Pittsburgh Coal Company, Indiana, Pennsylvania, has been elected to membership in the Controllers Institute of America.

Established in 1931, the Institute is a non-profit organization of controllers and finance officers from all lines of business — banking, manufacturing, utilities, distribution, transportation, etc. The total membership exceeds 4,200.

MOVERS OF COAL STRIPPING AND CONTRACTOR'S EQUIPMENT

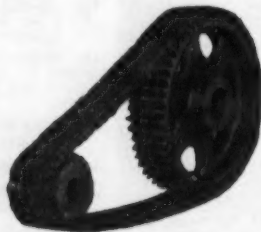


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Drills holes faster — Will not snap off shank or chip points — Outlasts four or five ordinary augers.

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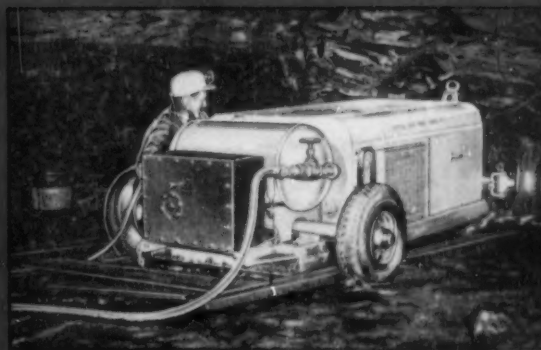


Davey Model 125 at Paul E. Kerlin Coal & Construction, Inc. strip mine near Export, Pa.

REGARDLESS of the nature of your operating requirements, you can always depend on Davey Compressors to do the job right.

Davey manufactures a complete line of portable and mine car compressors from 60 to 600 c.f.m. capacities... "Auto-Airs" (truck-mounted compressors driven from truck engines through Davey Power Take-offs)... Field Service Units and Mobile Machine Shops.

Your Davey mine equipment distributor will be glad to consult with you about your compressed air problems. May we suggest that you phone him today.



Davey Mine Air Compressor on roof-bolting job in Kentucky mine. Low height (32" to 37" for various size models) enables these units to operate "right next to the job" in many locations inaccessible to ordinary mine compressors.



Davey Field Service Unit repairs scraper on strip job. These units contain an "Auto-Air" Compressor, welder, lubricating and tire inflation equipment... all equipment necessary for handling every mine service, repair and maintenance need.

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**BEST
BUY**

USED EQUIPMENT

ITEM C142 Caterpillar Model D6-60" Gauge Tractor equipped with LaPlante Choate Hydraulic angle-dozzer, crankcase guard, track roller guards, front pull hook — repainted. F. O. B. Clearfield, Pa. \$5,900.00

ITEM E117 Model No. 112 Caterpillar Grader, equipped with scarifier and 12' blade. Has good tires and all around good condition. Carries a 30-day guarantee. F. O. B. Erie Pa. \$5,000.00

ITEM WV110 International Model TD14 Diesel Tractor mounted with Bucyrus-Erie Hyd. operated angle-dozzer and Model "F" Carco Winch. Equipped with crankcase guard, front pull hook, two lights in front and winch guard. Track Links, Pins and Bushings, drive sprockets and front idlers are like new. The entire unit has been cleaned and painted and is in excellent condition. F. O. B. Clarksburg, W. Va. \$4,800.00

ITEM WV100 Allis-Chalmers Model HD7W Diesel Tractor Mounted with Gar Wood Hyd. Operated Angledozer. Equipped with crankcase guard, front pull hook and track roller guards. The entire unit has been cleaned and painted and is in excellent condition. 1949 model F. O. B. Clarksburg, W. Va. \$4,500.00

ITEM E114 Model BDH Cletrac, equipped with Hell Angling Bulldozer. This tractor is in excellent condition with brand new tracks. F. O. B. Erie, Pa. \$3,950.00

ITEM C127 Caterpillar D17000 engine, new change-over group installed. Single water pump. Like new — rebuilt and guaranteed. F. O. B. Clearfield, Pa. \$6,500.00

ITEM WV105 Caterpillar Model D8 Tractor mounted with Caterpillar Model 8S Bulldozer and LeTourneau double drum cable control, equipped with crankcase guard, front pull hook and canopy top. Installed new pistons, rings and complete valve job on starting engine. Installed new pins in master clutch, adjusted steering clutches and entire unit has been cleaned and painted. This unit is in good condition. F. O. B. Clarksburg, W. Va. \$7,500.00

ITEM P106 Caterpillar Model D17000 engine completely rebuilt and guaranteed. F. O. B. Pittsburgh, Pa. \$6,500.00

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Ford 6 dump truck 1951 model run only 6,000 miles, \$2,000.

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35B Jeffrey cutting machine completely rebuilt, 250 volts, \$2,500.

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Charging Rack with Resistor \$35.00.

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Self Priming and Centrifugal pumps, Electric Motors — Prices on inquiry.

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Joy 14-BU with 24 J Mtrs 3 P E.

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Joy Loading Head Conveyor type P L 11-7PE

Joy T-1 — 3 P E Cat. Truck 250V.

Joy Cable Reel Shuttle Car type 32 E 6.

Joy Battery Shuttle Car type 32 D 5.

Goodman 512 Cutters C J H per missible.

Jeffrey Loco. 8 ton 42 ga. cable reel 250-v.

Mine Hoist with 50 and 150 hp mtrs.

Brownie Hoist for car spotting sedvice.

Complete McNally Washer 90 tph.

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Lorain 820 J Shovel 1½ yd. Air Controls.

Lorain 55 Shovel with new 150 hp Diesel Engine — Bargain.

International Angledozer TD-18 8400 series.

Hghlift and Angledozer, Combination Cletrac.

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Phone 701 Phillipsburg, Pa.

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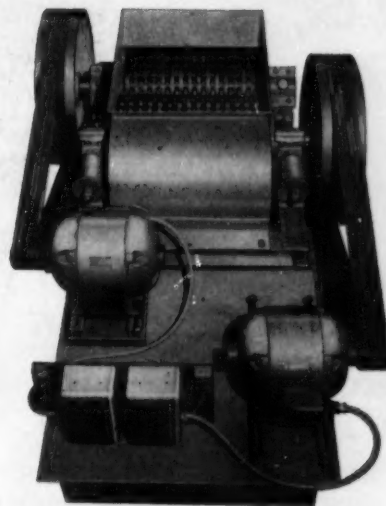
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Your team gains greater speed and efficiency, both in training and in actual competition, with the M.S.A. Contest Outfit and training materials. All required materials are neatly arranged, easy to see, instantly accessible. This means you can select the right materials, at the right time and bring your team to a quick, point-winning solution to every accident problem.

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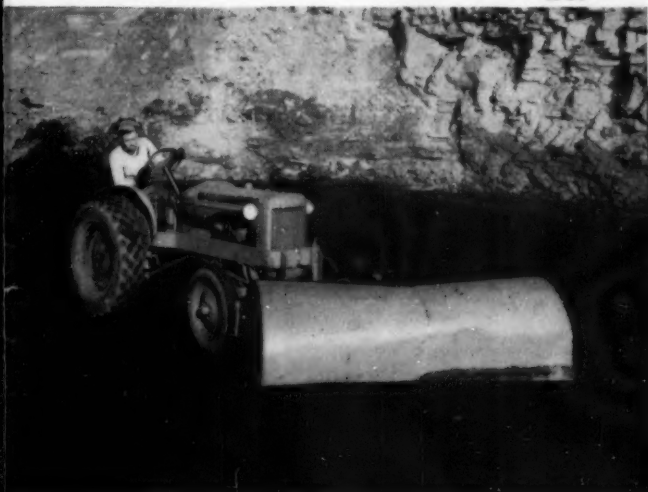
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Austin Model C-4
on Caterpillar D4



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Offered as complete equipment packages, these loaders, with $\frac{3}{4}$ to 8 cubic yard bucket capacities, are ready for easy installation on Caterpillar D2-4-6-7-8 tractors. Their exclusive "straight-in-line" loading principle often speeds up individual production tasks by as much as 50%... cuts costs... saves man-hours.

Normal Austin loading cycles require only 14 to 17 seconds. Consequently Austins load trucks and hoppers far faster than any other type of tractor loader. And—Austins are ideal for building coal stockpiles, haul road maintenance, handling drainage problems, working around shovels, salvaging coal that can't be reached by other equipment, backfilling spoil piles into coal pits, cleaning up around tipples, moving conveyors and unloaders. Frozen piles of coal do not stop Austins. They readily break through surface frost.

For further data... facts on what Austins can do for you, see your nearest Caterpillar dealer. Or write to Austin Division, Central Ohio Steel Products Co., Mansfield, Ohio. Ask for Bulletin L-8950.

A-9745

KEY TO AUSTIN LOADING SPEED IS "STRAIGHT-IN-LINE" OVERHEAD PRINCIPLE

Unlike ordinary tractor loaders, the Austin simply dozes into its load, raises it in an overhead arc—and dumps it into the haulage unit.



1 LOADS

2 RAISES

3 DUMPS

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Austin Overshot Loaders are sold by Caterpillar dealers everywhere



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